

Appln. No. 10/759,493
Docket No. 340426-900301 (Formerly 1040636-900301)
Response to Office Action of June 15, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A structural cell system for supporting hardscape areas that enables tree root growth and accommodates filtering, retention, storage and infiltration of storm water while preventing hardscape damage, comprising:

a plurality of structural cells ~~capable of being positioned~~ configured for positioning below a hardscape, the structural cells having openings sized to accept ~~tree structural~~ roots from a tree external to the structural cells and to accommodate natural growth of said ~~tree structural~~ roots within said structural cells;

one or more permeable barriers around the structural cells;

water ingress into the plurality of structural cells; and

water egress from the plurality of structural cells.

2. (original) The system of claim 1, wherein the hardscape may be sidewalk, parking or roadway pavement.

3. (currently amended) The system of claim 1, wherein the structural cells are ~~capable of storing~~ configured to store water.

4. (currently amended) The system of claim 1, wherein the structural cells are ~~capable of storing~~ configured to store low compacting tree-rooting medium.

5. (currently amended) The system of claim 4, wherein the tree-rooting medium is ~~capable of filtering~~ configured to filter the storm water.

6. (original) The system of claim 1, further comprising a soil injection port into the plurality of structural cells through the hardscape.

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7. (currently amended) The system of claim 1, wherein the structural cells are positioned in two or more layers that are disposed on each other.
8. (original) The system of claim 7, wherein at least one layer includes structural cells filled with water and at least one layer filled with soil.
9. (original) The system of claim 7, further comprising one or more permeable barriers positioned separating the layers.
10. (original) The system of claim 1, further comprising a cell inspection port through the hardscape.
11. (previously presented) The system of claim 1, further comprising one or more permeable barriers positioned between the structural cells and the hardscape.
12. (previously presented) The system of claim 1, further comprising one or more permeable barriers positioned between the structural cells and the surrounding soil.
13. (previously presented) The system of claim 1, wherein the structural cells are disposed in a vertical configuration.
14. (previously presented) The system of claim 1, wherein the structural cells are disposed in a corbel configuration.
15. (original) The system of claim 1, further comprising one or more water wicks.
16. (previously presented) The system of claim 1, wherein the water ingress is a storm drain inlet.
17. (original) The system of claim 1, wherein the storm drain inlet includes a filter.

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18. (previously presented) The system of claim 1, wherein the water ingress is through permeable hardscape.

19. (previously presented) The system of claim 1, wherein water egress is water infiltration into surrounding soil.

20. (previously presented) The system of claim 1, wherein water egress is a storm drain.

21. (previously presented) The system of claim 1, further comprising means for flushing the system with water to remove sediment or debris.

22. (currently amended) A multilayered structural cell system for supporting hardscape areas that enables tree root growth and accommodates filtering, retention, storage and infiltration of storm water while preventing hardscape damage, comprising;

a first layer of structural cells for short-term water storage ~~positioned~~configured for positioning below the hardscape, the first layer of structural cells being capable of short term water storage;

water ingress into the first layer;

a second layer of structural cells ~~positioned~~configured for positioning below the first layer, ~~the second layer of structural cells being capable of storing and including a tree-rooting~~ medium supporting the normal growth of ~~tree~~structural roots within the second layer of structural cells;

a third layer of structural cells ~~positioned~~configured for positioning below the second layer, the third layer of structural cells being ~~capable of~~configured for long-term water storage;

water egress from the third layer of structural cells;

a first permeable barrier separating the first and second layers;

a second permeable barrier separating the second and third layers; and

each of the layers being in fluid communication with the other layers.

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23. (original) The system of claim 22, wherein the second layer of structural cells have one or more openings sized to accept tree roots.
24. (currently amended) The system of claim 22, wherein the tree-rooting medium is ~~capable of filtering~~ configured to filter the storm water between the first layer and the third layer.
25. (original) The system of claim 22, further comprising a barrier positioned between the first layer and the hardscape.
26. (original) The system of claim 22, wherein the hardscape may be sidewalk, parking or roadway pavement.
27. (original) The system of claim 22, further comprising one or more water wicks between layers.
28. (original) The system of claim 22, further comprising a soil injection port through the hardscape.
29. (original) The system of claim 22, further comprising cell inspection port through the hardscape.
30. (original) The system of claim 22, further comprising a flushing cleanout port.
31. (previously presented) The system of claim 22, further comprising one or more permeable barriers positioned between the first layer of structural cells and the hardscape.
32. (previously presented) The system of claim 22, further comprising one or more permeable barriers positioned between the first, second and/or third layers of structural cells and the surrounding soil.

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33. (previously presented) The system of claim 22, wherein the structural cells are disposed in a vertical configuration.
34. (previously presented) The system of claim 22, wherein the structural cells are disposed in a corbel configuration.
35. (original) The system of claim 22, further comprising one or more water wicks.
36. (previously presented) The system of claim 22, wherein the water ingress is a storm drain inlet.
37. (original) The system of claim 22, wherein the storm drain inlet includes a filter.
38. (previously presented) The system of claim 22, wherein the water ingress is through permeable hardscape.
39. (previously presented) The system of claim 22, wherein water egress is water infiltration into surrounding soil.
40. (previously presented) The system of claim 22, wherein water egress is a storm drain.
41. (original) The system of claim 22, further comprising a splitter system allowing some water to pass directly from the first layer to the third layer.
42. (original) The system of claim 22, further comprising one or more weep holes to allow draining.
43. (previously presented) The system of claim 22, further comprising means for flushing the system with water.

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44. (currently amended) A method of making an urban tree growth system; comprising:
forming an opening in hardscape at least large enough for a rootball and a trunk of a tree;
positioning a plurality of structural cells in layers around the opening and at least partially under the hardscape, the plurality of structural cells configured to permit growth of structural roots from the tree therethrough;
inserting the rootball in the opening; and
filling the opening and some of the structural cells proximate the opening with a tree-rooting medium for supporting ~~tree-root~~ growth of the structural roots through the plurality of structural cells.

45. (original) The method of claim 44, further comprising filling some of the structural cells with water wherein the water is in fluid communication with the structural cells with the tree-rooting medium.

46. (original) The method of claim 44, further comprising flushing the system with water.